An economical ON-delay solid-state TDR with octal plug-in base, the ATC 319 maintains excellent repeat accuracy despite wide voltage and temperature variations, even after long periods of down-time. One model has five dial-selected adjustable ranges and provides any timing period between 0.02 SEC and 30 MIN.

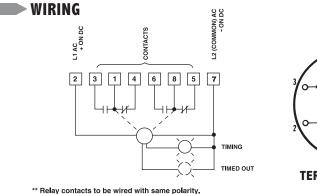
WIDE CHOICE OF RANGES: In addition to the short ranges expected of an electronic TDR, the 319 is also available with ranges as long as 100 minutes, for AC or DC operation. An unusually versatile model, the 319 five ranger has five dial-selected ranges-from 0.3 SEC to 30 MINand provides any dial-adjustable timing period between 0.02 seconds and 30 minutes; (1, 10 and 100 SEC and 10 and 100 MIN). A single 319 model thus accommodates the needs of a wide range of applications, allowing the user to select--easily and precisely--an appropriate range to permit optimum setting accuracy. The dial face automatically displays the selected range. The 319 offers a choice of five dial-adjustable fixed ranges between 1 SEC and 30 SEC.

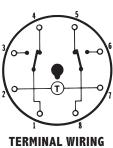
CYCLE PROGRESS INDICATION—MODEL 319E: All options incorporate a light-emitting diode (LED) which is on during the time cycle, off at the end of timing. The 5-range option also includes a second LED which separately indicates the status of the output relay: on when energized, off when de-energized.

HIGH ACCURACY: The 319's timing circuit is not subject to the large plus error that plagues many electronic TDRs after long periods of downtime: it maintains rated accuracy regardless of reset time variations, provided that there is at least 0.1 SEC between cycles for Model 319. All models hold unusually high repeat accuracy in the face of wide voltage and temperature swings.

# **OPERATIONS**

Timing begins when the start switch is closed. At the same time, the Timing LED goes on and a relaxation oscillator starts to run at a rate determined by the set-pot. The 319 times out when the oscillator count is equal to the level set by the range switch, a second LED turns on at time-out. At time-out, the load relay is energized, transferring its contacts. Reset occurs when the start switch is opened or when power is interrupted.







# Plug-In Adjustable AC/DC TDR

## MODEL NUMBER

MODEL NUMBER	319E		F		
RANGE					
Five dial-selected ranges		030			
(0.3 SEC., 3 SEC., 30 SEC.,					
3 MIN, 30 MIN)					
1 SEC., 10 SEC, 100 SEC,		100			
10 MIN, 100 MIN					
VOLTAGE & FREQUENCY					
24-240 VAC, 24 VI		F			
ARRANGEMENT					
On-Delay			1		
Special			0		
FEATURES					
Standard					C
Special					K
ACCESSORIES					
Surface/DIN rail mounting socket				000-825-85-00	
Surface mounting socket				000-825-64-00	

Surface/DIN rail mounting socket	000-825-85-00
Surface mounting socket	000-825-64-00
Retaining clip for mounting socket	319-025-06-00
Panel mount bezel kit	319-261-44-00
Panel mount socket kit, 8-pin	319-261-45-00

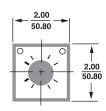
rime delay relay

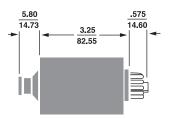
## SPECIFICATIONS

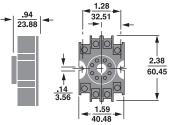
MODELS 319E-AC or DC; 5 dial-selected adj. ranges All models operate in on-delay mode only. **RANGES AND** Model 319E-030F 0-0.3 SEC - 0.02 SEC MINIMUM 0-3.0 SEC - 0.07 SEC SETTINGS 0-30.0 SEC - 0.6 SEC 0-3.0 MIN - 3.5 SEC 0-30.0 MIN - 35.0 SEC Model 319E-100F 0-1 SEC - .003 SEC 0-10 SEC - .1 SEC 0-100 SEC - 1 SEC 0-10 MIN - 6 SEC 0-100 MIN - 60 SEC TYPE LOAD RELAY DPDT (2 Form C) AC: 50,000,000 operations (no load) **CONTACT RATING** LIFE DC: 100,000,000 operations (no load) CONTACT 7A resistive at 120 or 240V AC: RATING DC: 3A at 30V **TEMPERATURE** 32° to 131°F (0° to 55°C) MOUNTING Plug-in octal base; mounts in any position OPTIONAL: Surface-mounting socket; panel-mounting bezel kit and plug-on socket kit for Model 319E. 24 - 240 VAC or 24 VDC REQUIREMENTS 10% at full scale

### **DIMENSIONS** (INCHES/MILLIMETERS)

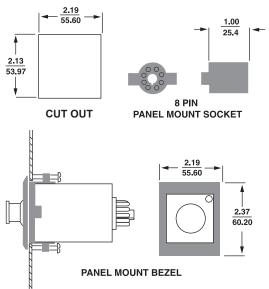








**8 PIN OPTIONAL OCTAL SOCKET** 



# **FIME DELAY RELAYS**

RATING

**POWER** 

**319E Series** 

### SETTING ACCURACY Varies as a function of line voltage and temperature **REPEAT ACCURACY** but not of reset time (see Recycle Characteristics) $\pm$ 1% of range or 2.0 mSEC (whichever is greater), when temperature is constant and line voltage is constant or varies within limits\* $\pm$ 4% of range or 2.0 mSEC (whichever is greater), when line voltage is constant and temperature varies within limits\* $\pm$ 6% of range or 2.0 mSEC (whichever is greater), when line voltage and temperature vary within limits\* \*Variations of line voltage must be within 95 and 132V; of temperature between 32° and 158°F (0° and 70°C) **RESET TIME** 5 mSEC if power is interrupted any time after time-out; 70mSEC if power is interrupted during timing. RECYCLE When 0.1 SEC or longer of reset time is allowed after time-out or after power interruption, the next cycle is timed at full repeat accuracy; when only 0.07 SEC is allowed, the next cycle is shortened by as much as 1%. HOUSING Dust, moisture and impact-resistant molded plastic case. WEIGHT NET: 6 oz. SHIPPING: 10 oz.